



CH2MHILL

CH2M HILL

250 E. 5th Street

Suite 1500

Cincinnati, OH

45202-4151

Tel 513.762.7605

Fax 513.721.4628

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Mr. Michael McAteer, WAM (5HSRL-6J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Monthly Field Progress Report No. 10
CH2M HILL/E&E Oversight of Remedial Action Activities
Enviro-Chem (ECC) Superfund Site, Zionsville, Indiana
WA No. 008-RXBF-0530, Contract No. 68-W6-0025

Dear Mr. McAteer:

Enclosed is a copy of Monthly Progress Report No. 10 for the November 1998 reporting period and the corresponding photographic log. This is the final Monthly Field Progress Report for the Work Assignment since all significant remedial construction activities have been completed.

Please call me at (513) 762-7605 if you have any questions.

Sincerely,

CH2M HILL

Timothy D. Harrison, P.E.
Site Manager

CIN\PRO10

Enclosures

c: Stephen Nathan/PO/USEPA; 5HSM-5J (w/o enclosure)
Peggy Hendrixson/CO/USEPA; 5MCC-10J (w/o enclosure)
Ike Johnson/PM/MKE
Al Erickson/RTL/MKE
Dan Lynch/Environment & Ecology
Gail Gill/AA/MKE

ECC RA Oversight Progress Report No. 10 (November 1998)

CH2M HILL Remedial Action (RA) Oversight Observation

This is the tenth RA oversight progress report submitted by CH2M HILL for RA activities at the Enviro-Chem (ECC) Superfund Site in Zionsville, Indiana. This progress report covers the period from November 1 through November 30, 1998. This is the last monthly progress report for the Work Assignment since all significant remedial construction activities have been completed.

Versar Inc., the ECC Trust's (Trust) prime remediation contractor, and several of their subcontractors performed field activities during the reporting period. Dan Lynch/Ecology & Environment, Inc. (CH2M HILL subcontractor) provided full-time oversight at the ECC site during this reporting period at the request of U.S. EPA.

On November 12, Tim Harrison and Chris Greer of CH2M HILL traveled to the site to collect split Verification Monitoring samples with Environ. The samples were the first quarterly Verification Monitoring required by Exhibit A of the Consent Decree. CH2M HILL split groundwater samples collected by Environ from monitoring wells S1 and S3.

Progress Made by Trust's Contractor This Reporting Period

The line items below list the status of a particular remediation task identified in the Trust's Revised Project Schedule dated June 1, 1998. Line items not listed were completed prior to this reporting period and are discussed in previous progress reports.

- 43. Construct Perimeter Roads—This item is in progress, but behind schedule. Roads have been "roughed in" but are not final based on specifications. This is not a critical path issue and has been delayed while the Trust address critical path issues.
- 44. Clean and Repair Erosion Ditches—Revetment was installed in about 90% of the west ditch south of the site access gate. The ditch west of the central SVE area and the southern concrete pad area is yet to be constructed. All other ditches were completed prior to this reporting period.
- 63. Process System Wire— The wiring of the process building and the storage tank controls was completed during this reporting period. The "pre-startup checks" were completed during this reporting period. The contractor reports that the system is ready for complete automatic operation.
- 64. SVE System Testing— The pre-startup (i.e., functional) testing of the system was completed during this reporting period. The system was officially started (per Schedule Z of Consent Decree) on November 25 at 1600 hours. "Shakedown" (performance) testing is now in progress and is required to continue for four weeks beyond the official Start date. Once the Shakedown period is completed, baseline

- vapor sampling are to be completed on all individual trench laterals and on the combined system per the specifications.
65. **SVE Startup and Shakedown (native soil)**— The system was started up during this reporting period and shakedown is continuing.
 66. **SVE Treatment Complete System**— SVE system construction was completed during the reporting period and the system is in fully automated operation.
 70. **Pumping and Treating of Ponded Water**— This activity was initiated prior to this reporting period and has continued as necessary throughout the operations. The site is now covered with clean material and it is not anticipated the collection and treatment will be necessary in the future. Only water from the SVE operation and “hot spot” remediation activities will be treated.
 71. **Wastewater Storage and Treatment System Complete**— The system is complete.
 73. **North Treatment Area Phase 1 (Existing Soils)**— Activities continue as described in item 78A below.
 - 78A. **Install Keyway Berm** — The keyway was completed prior to this reporting period. However, the anchor trench for the HDPE liner was excavated this month in the center of the keyway per the RCRA cap redesign specifications.
 85. **Air Monitoring** — No air monitoring was conducted during this reporting period since the site was covered with “clean” material and HPDE liner. In addition, no intrusive work occurred in potentially contaminated material.
 87. **South Concrete Pad Area**— Work is discussed in item 89 below.
 89. **Install Well Points to Dewater Area**— This activity was completed prior to this reporting period. Two of the six original well points were left in place to provide water for future grass watering activities during site restoration. The other four well points were abandoned prior to this reporting period.
 - 112 – 117. **Southern Pad Excavation**— Backfilling of the southern concrete pad area was completed prior to this reporting period except for topsoil. The southern pad area was used to stockpile select cover material and topsoil for the HDPE liner being installed in the northern portions of the site. The select cover material was placed on the Northern and Central cap areas during the reporting period. The topsoil is still stockpiled in the southern pad area. After the topsoil has been placed on the SVE area, final grading and topsoil placement on the southern pad area will be completed.
 118. **Install Liner on North Wall**— This item was completed prior to this reporting period. However, the RCRA cap HDPE liner was attached to the existing slope liner per the cap redesign specifications this month.
 121. **South Concrete Pad Area Complete** — Area was backfilled and some grading was completed. Topsoil has not been placed. The drainage ditches adjacent to pad have not been constructed. The area is being used to stockpile topsoil cover material for the RCRA cap. The area final grading and topsoil placement will be completed after the topsoil stockpile has been placed on the northern cap area.

126. **Complete Stage 1 Landfill Cover** — The RCRA cap design was revised to use a 60 millimeter HDPE membrane and geosynthetic drainage net with 18 inches of select cover and 6 inches of topsoil above it instead of a low permeability clay cap. A bridge lift of a minimum of 3-inches of select fill was required between the contaminated fill material and the HDPE liner. The bridge lift was completed prior to this reporting period. The cap was completed during this reporting period except for the final grading and compaction testing of the select cover material and placement of the topsoil. The remaining work is expected to be completed early in the next reporting period. Per Schedule Z of Exhibit A of the Consent Decree requirements, the critical portion of the RCRA cap (i.e., HDPE liner) was completed on November 11. Therefore, the December 2, 1998 cap completion deadline was achieved.
127. **Commence SVE Operations** — The SVE system was officially (per Exhibit A of Consent Decree) started at 1600 hours on November 25, 1998.
129. **Sampling of Monitoring Wells by Trustees** — The first quarterly Verification Monitoring of groundwater and surface water was conducted by Environ during this reporting period. Sampling was required prior to the official start of the SVE system. CH2M HILL collected split samples from monitoring wells S1 and S3 for analysis.
143. **Final Stage II RCRA cap in Northern Treatment area** -- Due to the cap redesign, there is no second stage cap required. Therefore, this item is no longer applicable.

All other schedule line items are to be initiated after this reporting period.

Problems Resolved by the ECC Trust's Contractor

None.

Problem Areas Remaining

1. During geotechnical drilling of the southern concrete pad area, the Trust discovered on area of high VOCs (based on PID readings of the soil using an OVM) that they did not anticipate. This area was not intended to be remediated by the Trust under the current remedial design. Five borings were completed to further investigate the area. Three of the borings showed no obvious contamination (based on PID headspace readings performed by Trust). The remaining two borings showed indications of contamination and sampling/treatment wells ("hot spot" wells) were installed.

Prior to this reporting period, the test results from the two contaminated wells showed that the levels had significantly increased after initial contaminant reduction indicating that a larger, hydraulically connected contaminant source may be present. The Trust proposed to complete the south pad excavation in an attempt to remove any potential source(s) connected to the "hot spot" areas and then retreat with Fenton's reagent. No action has been taken during this reporting period.
2. During the excavation of the southern concrete pad, a sand seam containing water and apparent free product was found in the southeast corner of the excavation. The seam is located at about fourteen feet below ground surface and appears to extend southward.

The Trust extended the lateral excavation about 8 feet south of the remedial boundary in the area of the sand seam to see if it would "pinch out". The seam did not diminish but the excavation was halted by the Trust's engineer because of the close proximity of the fractionation tanks and the concern for sidewall stability of the excavation. An extraction/injection well was installed in this hotspot prior to this reporting period.

A pump test was conducted by Versar during this reporting period. The Hotspot #2 well was pumped at a rate of between 2 and 2.5 gallons per minute for six days totaling approximately 18,000 gallons of water. The hydrogeologic formation was not pumped dry during the activity. The Trust is expected to prepare a summary of the pump test results for U.S. EPA review. Trust representatives also collected a water sample during the pump test. The results have not yet been released to U.S. EPA. U.S. EPA expects to review the Trust's plan for remediation of this area during the next reporting period.

Trust's Activities Planned

The following activities are expected to begin, or be completed, during the next reporting period based on Versar's current project schedule. The line items below list the status of specific remediation line items identified in the Trust's Revised Project Schedule dated June 1, 1998.

- 43. Construct Perimeter Roads — Complete construction of the interior site access road.
- 44. Clean and Repair Erosion Ditches — Complete construction of remaining site erosion ditches per the specifications.
- 126. Complete Stage 1 Landfill Cover — Complete the Phase 1 cover (topsoil and seeding).
- 127. Commence SVE Operations — Operations of the SVE system has started. The operational vapor testing of the SVE system is expected to be started on December 24 and continue daily for one week.
- 128. Installation of Monitoring Wells — Monitoring wells were installed prior to this reporting period. However, monitoring well S4D was damaged during the past reporting period and is expected to be replaced the week of December 7.
- 131. O & M of SVE System — Long-term O & M phase is expected to start on December 24 (i.e., four weeks after the official startup date). An O&M plan is to be submitted to U.S. EPA eight weeks after the start of the O&M phase.

Other line items shown on the contractor schedule are expected to take place after the next reporting period and are therefore not included in this report.

ECC Trust's Schedule Status

Based on the Trust's revised project schedule dated June 1, 1998, it appears that progress is about 20 weeks behind schedule at the end of this reporting period but within the schedule 'Z' time line.